

Chapter 3 Existing Habitat Conditions and Status of Fish Populations

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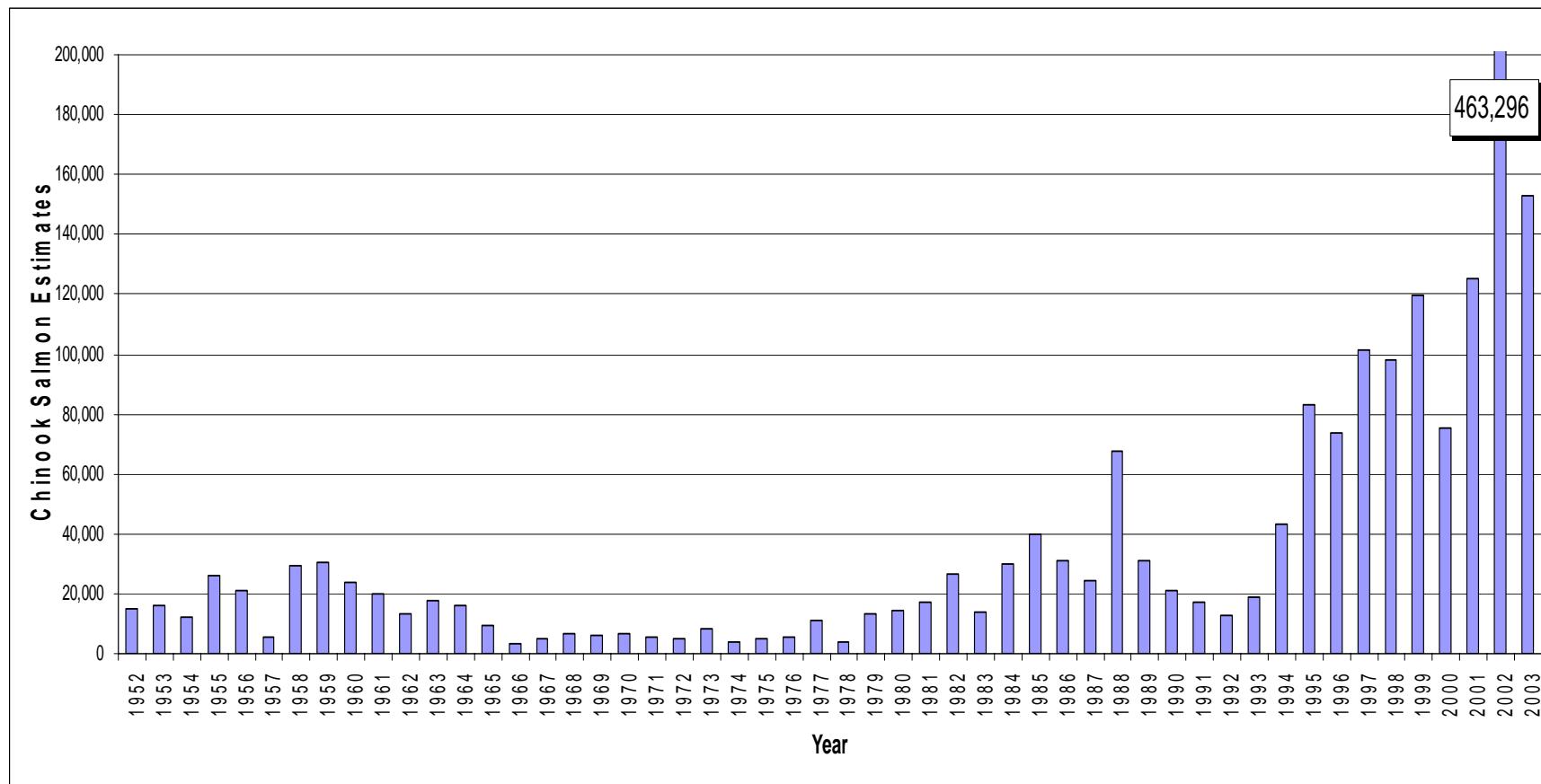
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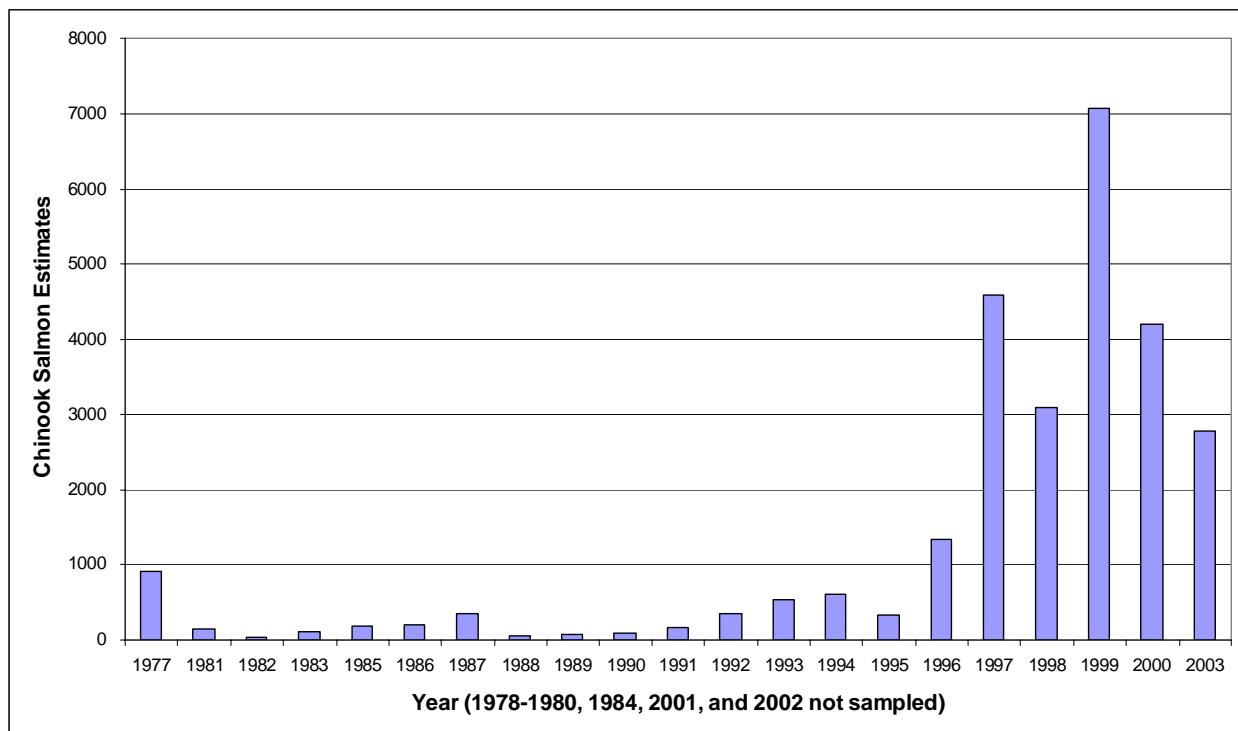
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Figure 3-1 Battle Creek fall-run Chinook salmon yearly population estimates



Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-2 Battle Creek late-fall run Chinook salmon yearly population estimates



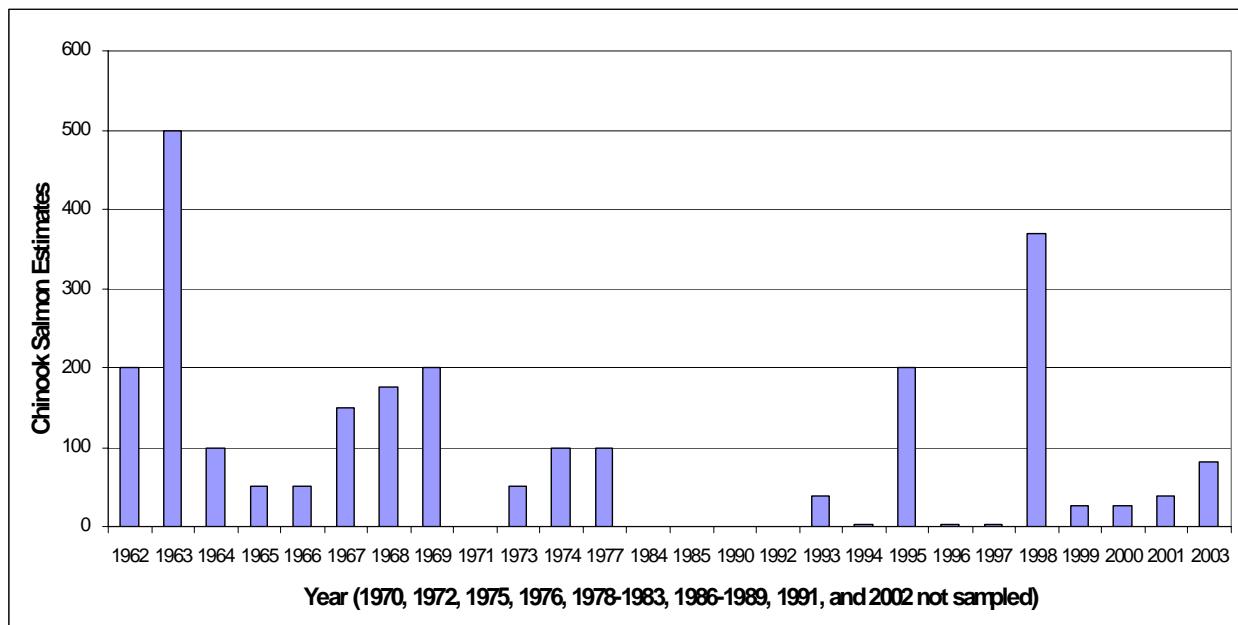
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-3 Mean monthly flows from 1961 to 2000 on Battle Creek near Coleman Fish Hatchery



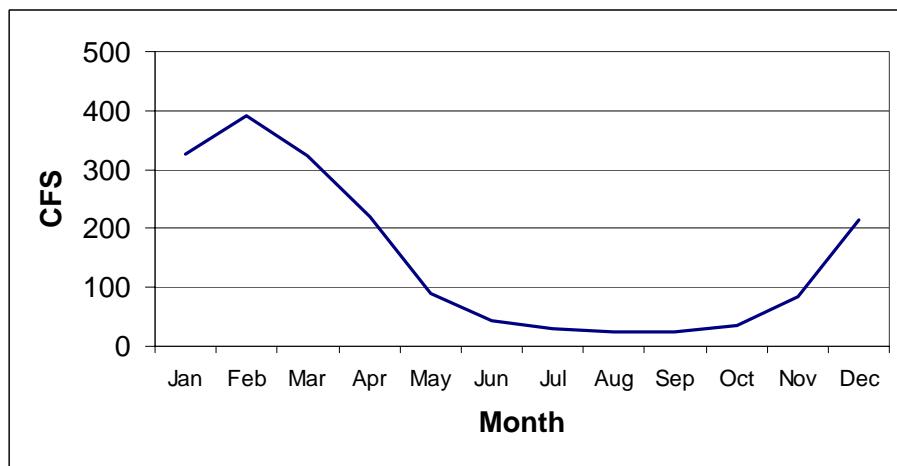
Note: USGS gage number 11376550 (USGS 2002)

Figure 3-4 Big Chico Creek spring-run Chinook salmon yearly population estimates



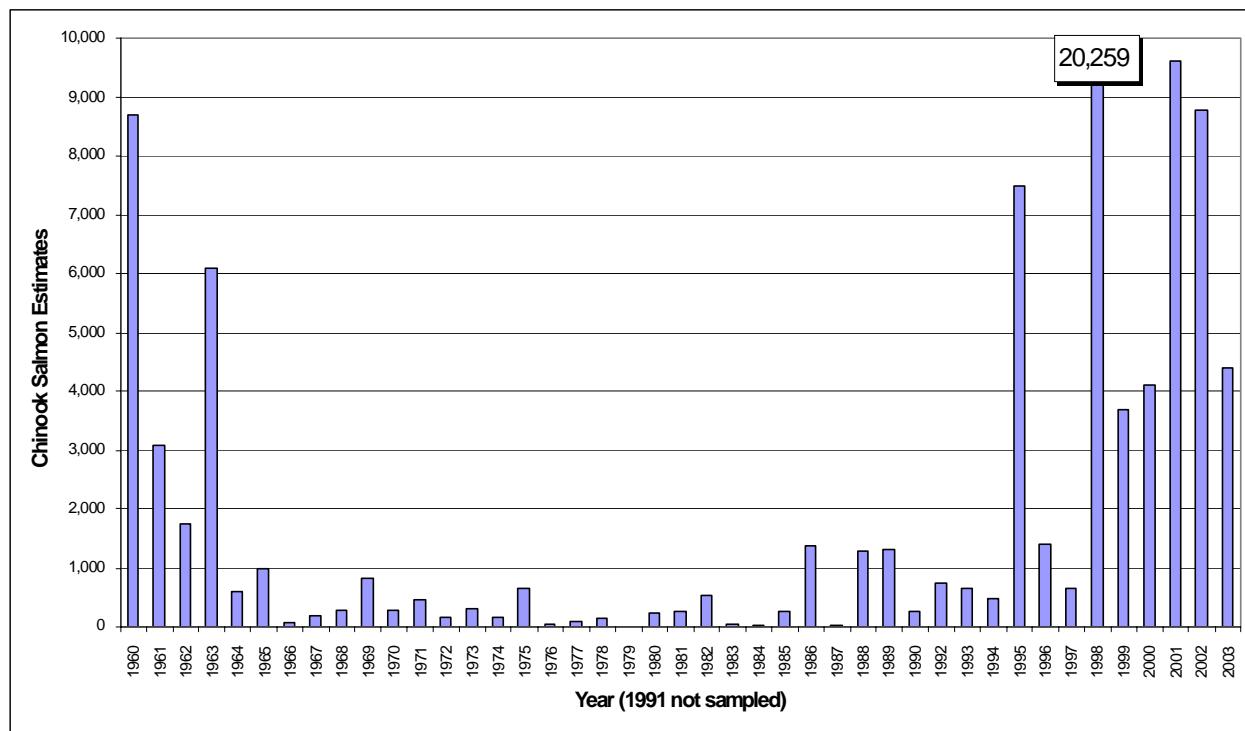
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-5 Mean monthly flows from 1930 to 1986 on Big Chico Creek near Chico in Butte County



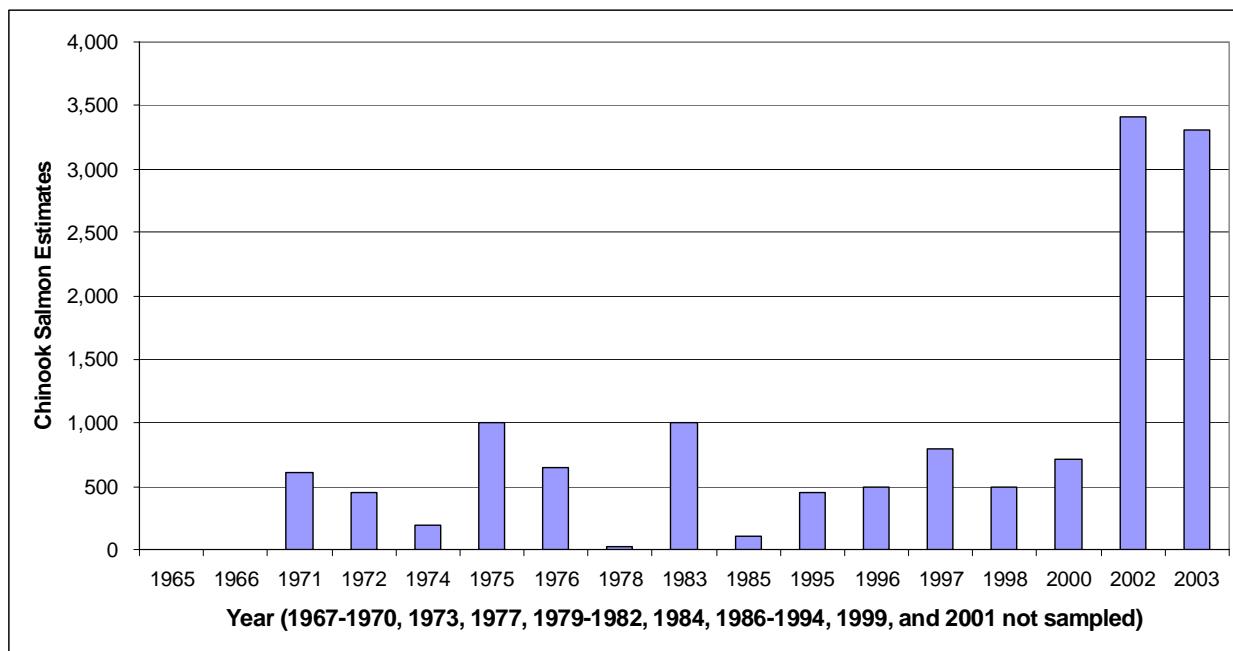
Note: USGS gage number 11384000 (USGS 2002)

Figure 3-6 Butte Creek spring-run Chinook salmon yearly population estimates



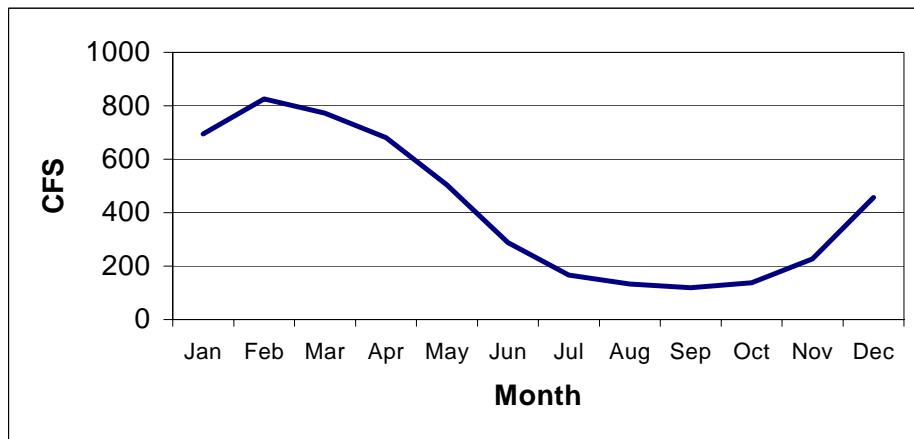
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Arrison, 2004

Figure 3-7 Butte Creek fall-run Chinook salmon yearly population estimates



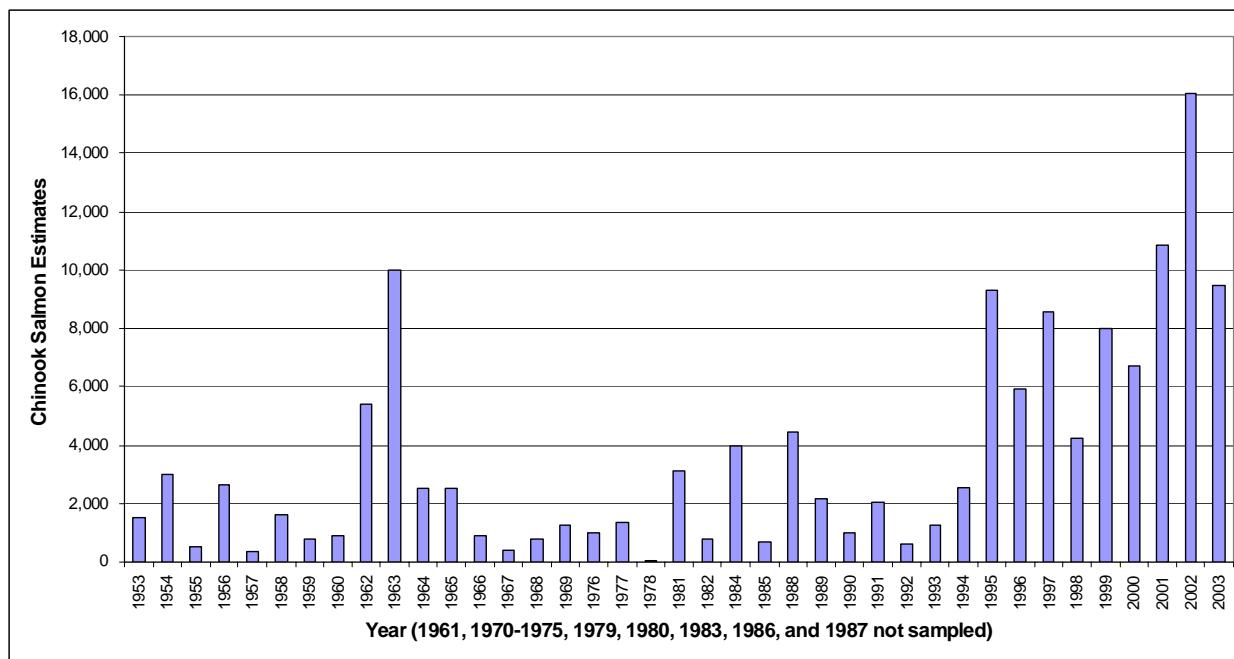
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-8 Mean monthly flow from 1930 to 2000 on Butte Creek near Chico in Butte County



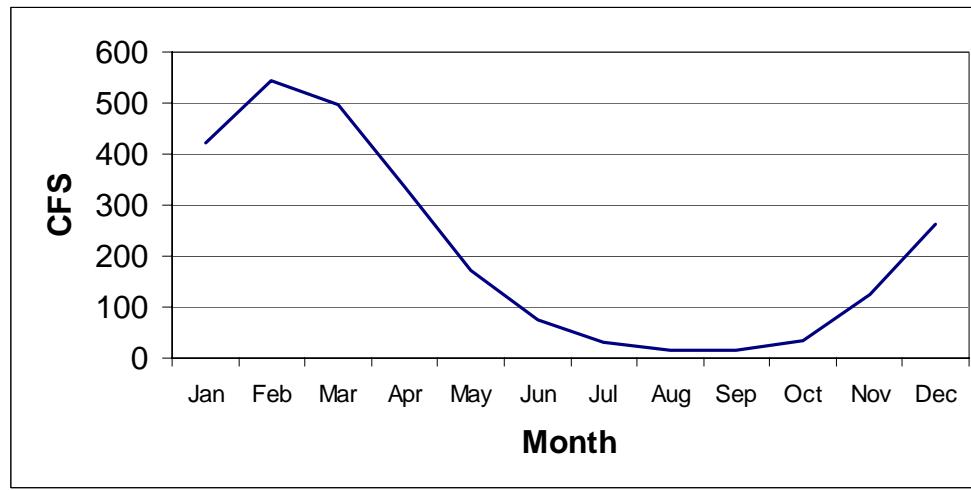
Note: USGS gage number 11390000 (USGS 2002)

Figure 3-9 Clear Creek fall-run Chinook salmon yearly population estimates



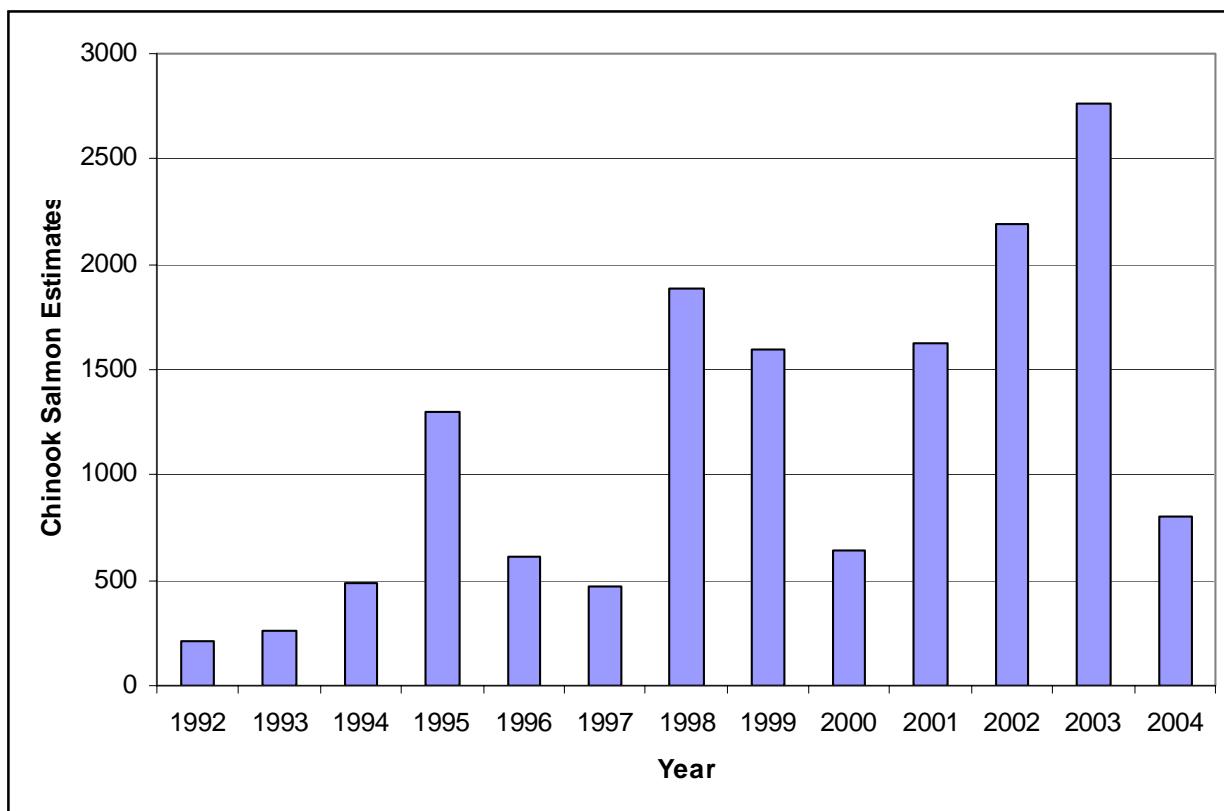
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-10 Mean monthly flows from 1950 to 1993 on Clear Creek near Idria



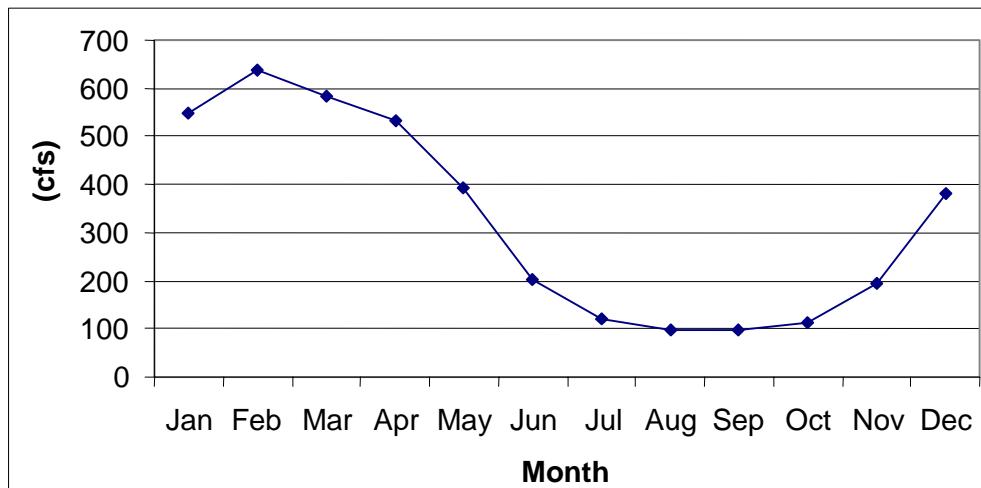
Note: USGS gage number 11154700 (USGS 2002)

Figure 3-11 Deer Creek spring-run Chinook salmon yearly population estimates



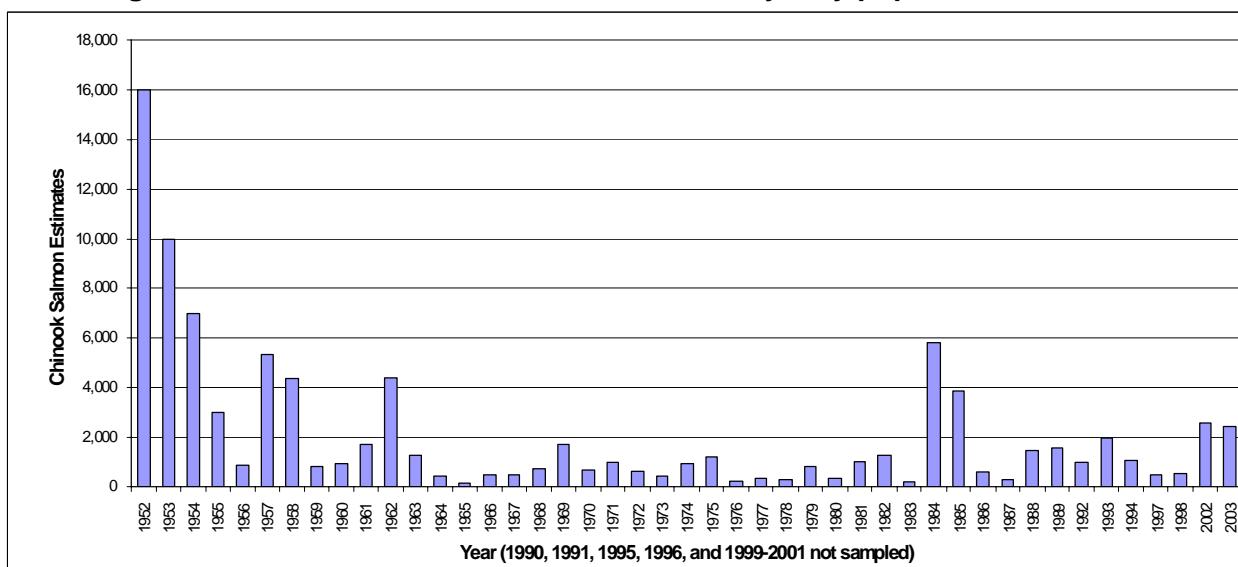
Note: Almanor Range District Lassen National Forest 2005

**Figure 3-12 Mean monthly flows from 1912 to 1995 on Deer Creek near Vina,
Tehama County**



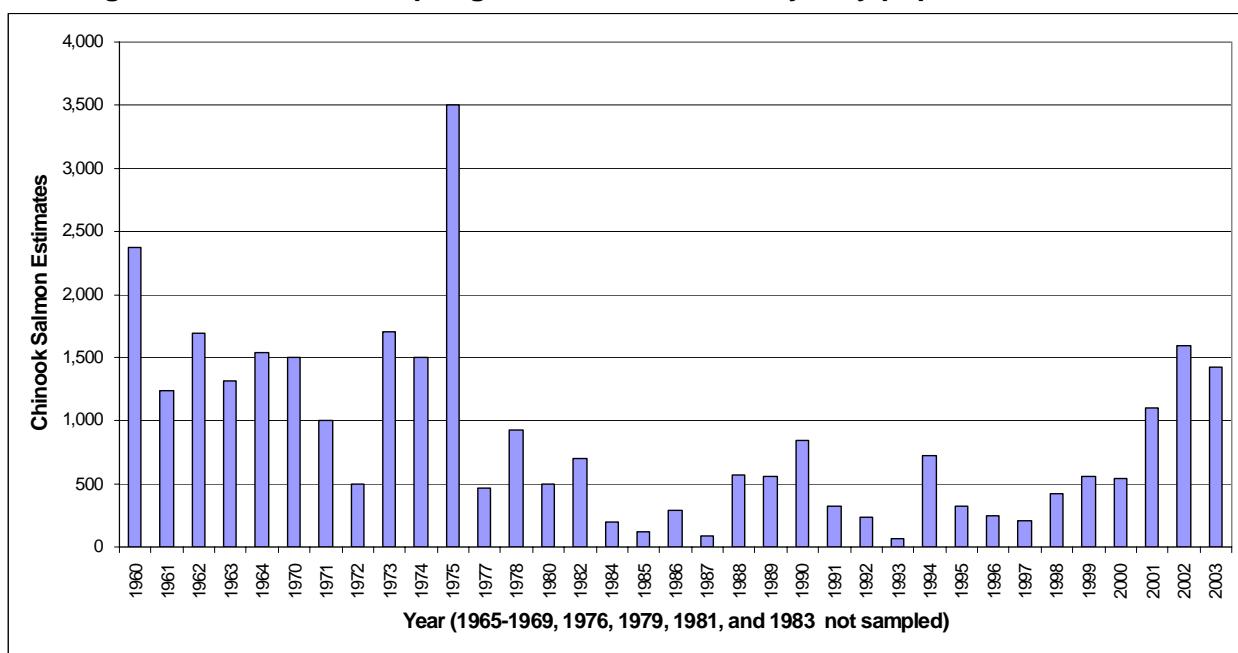
Note: USGS gage number 11383500 (USGS 2004)

Figure 3-13 Mill Creek fall-run Chinook salmon yearly population estimates



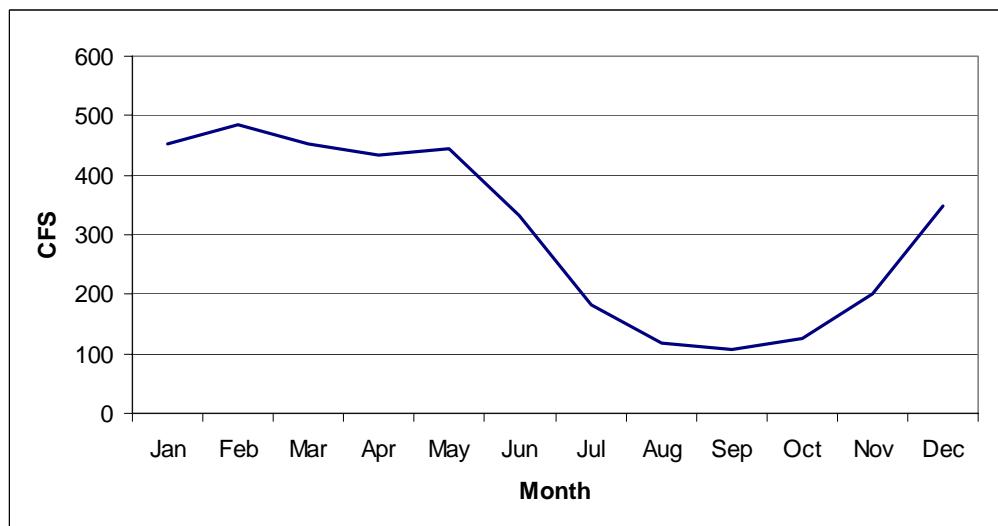
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-14 Mill Creek spring-run Chinook salmon yearly population estimates



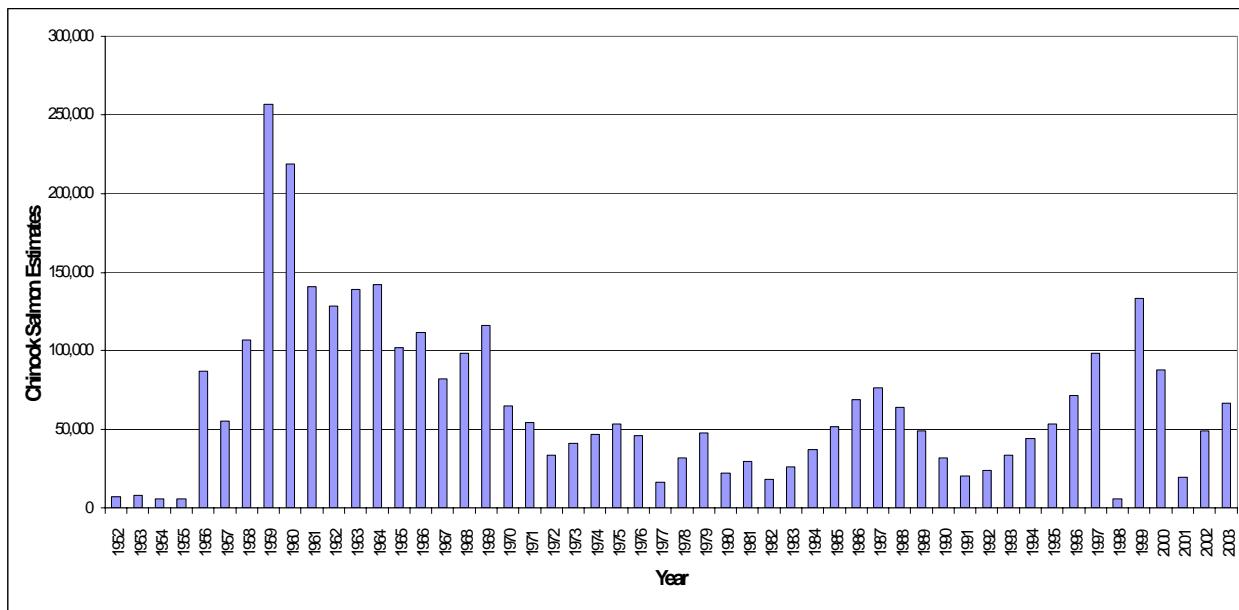
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-15 Mean monthly flows from 1928 to 2000 on Mill Creek near Los Molinos, Tehama County



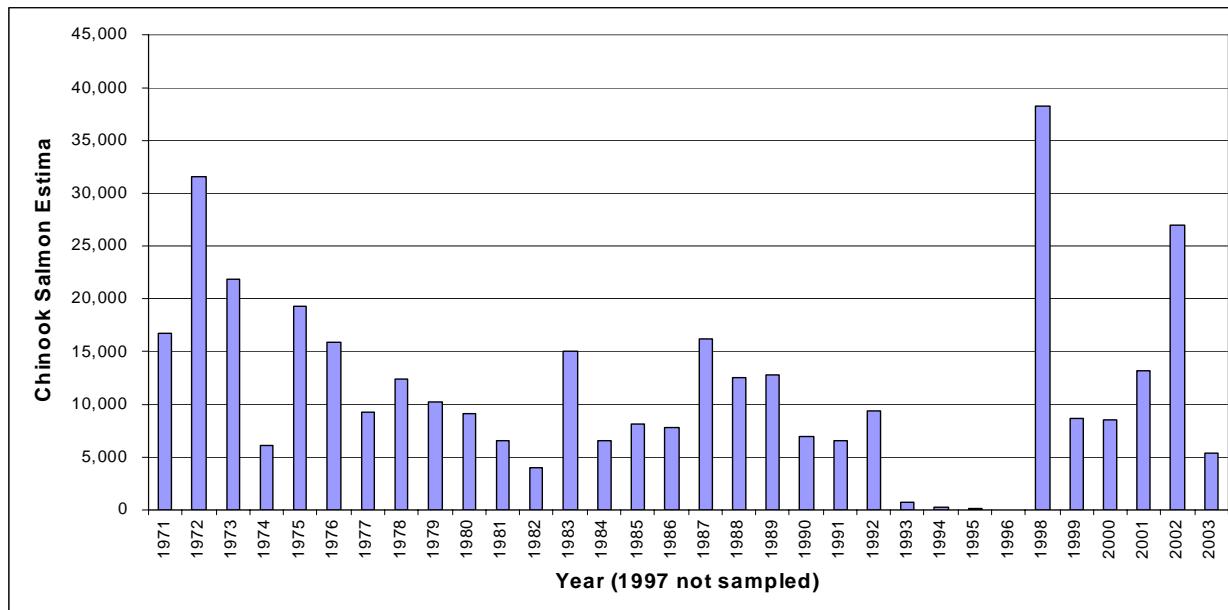
Note: USGS gage number 11381500 (USGS 2002)

Figure 3-16 Sacramento River from Red Bluff Diversion Dam to Keswick Dam fall-run Chinook salmon yearly population estimates



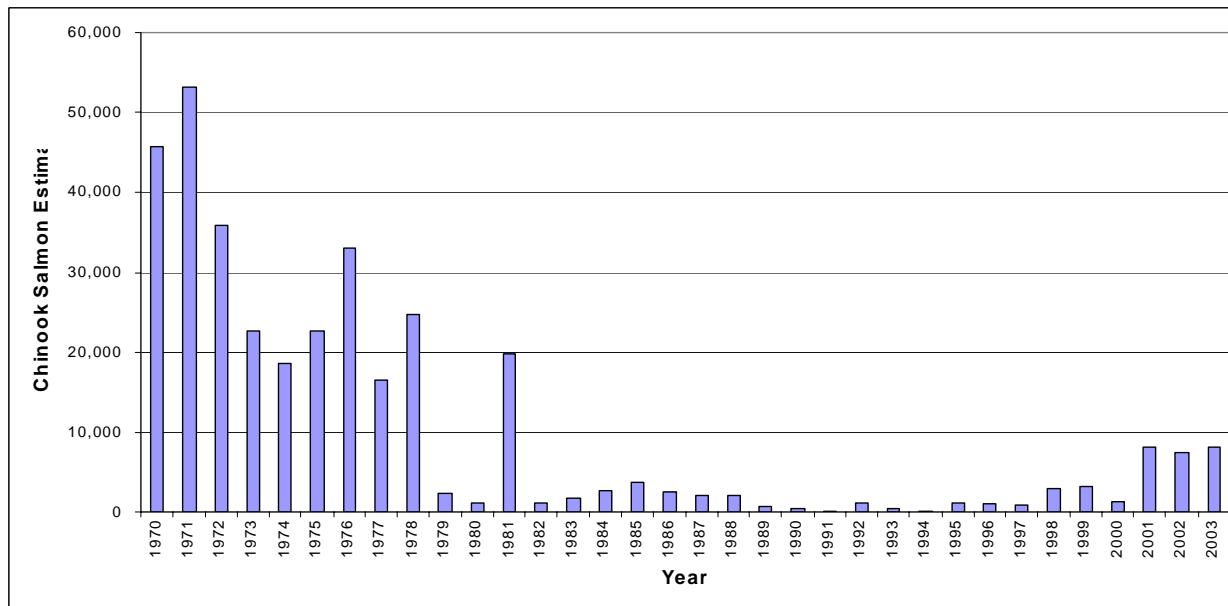
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Arrison, 2004

**Figure 3-17 Sacramento River from Red Bluff Diversion Dam to Keswick Dam
late-fall run Chinook salmon yearly population estimates**



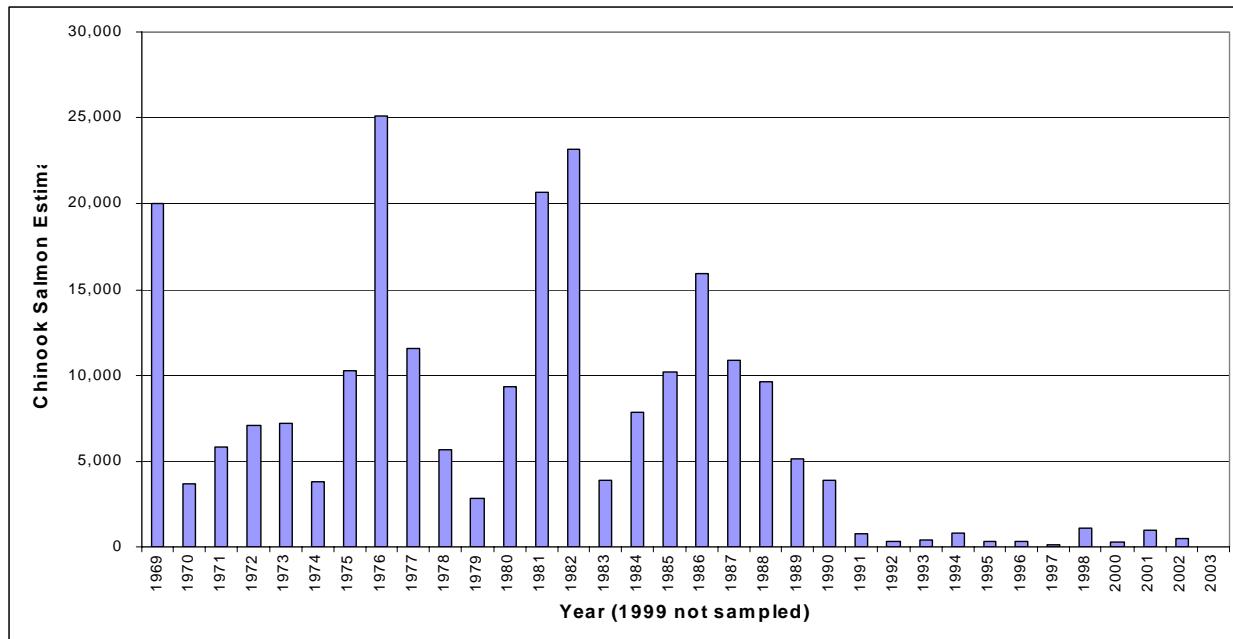
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

**Figure 3-18 Sacramento River from Red Bluff Diversion Dam to Keswick Dam winter-run
Chinook salmon yearly population estimates**



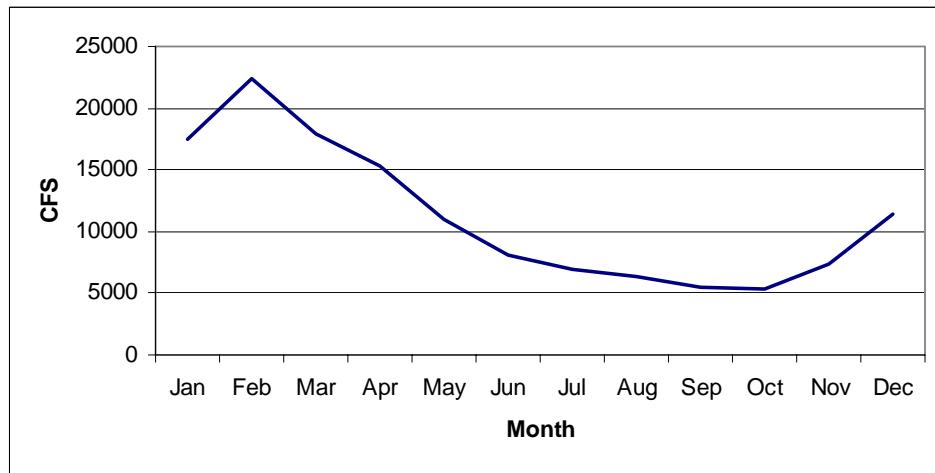
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-19 Sacramento River from Red Bluff Diversion Dam to Keswick Dam spring-run Chinook salmon yearly population estimates



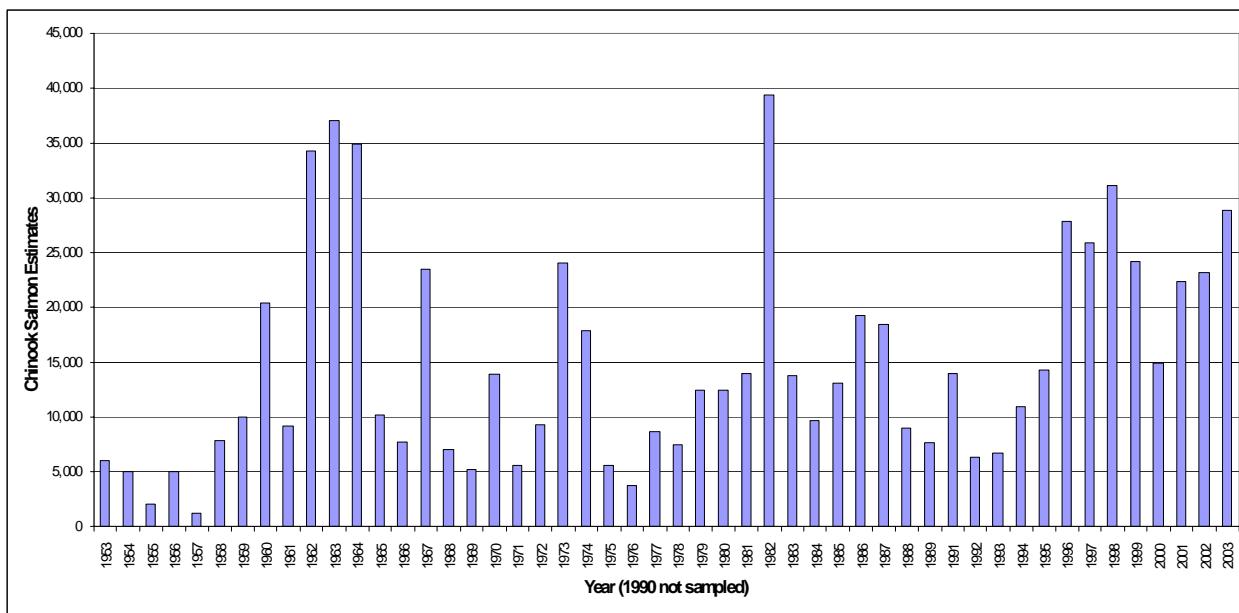
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-20 Mean monthly flows from 1902 to 1968 on Sacramento River near Red Bluff



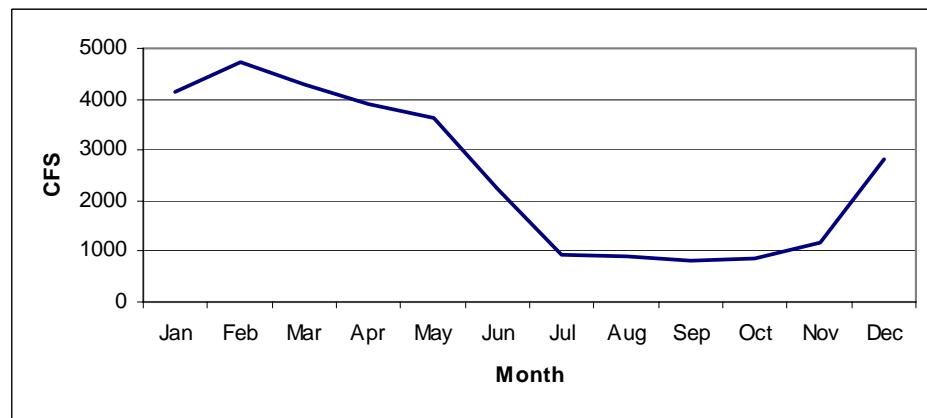
Note: USGS gage number 11378000 (USGS 2002)

Figure 3-21 Yuba River fall-run Chinook salmon yearly population estimates



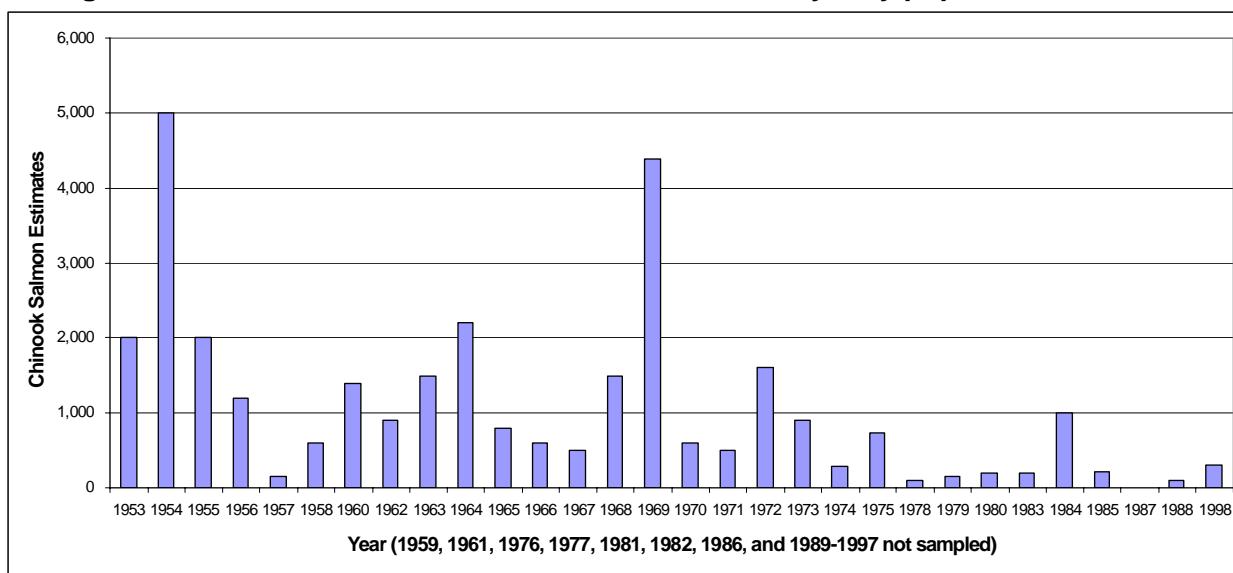
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-22 Mean monthly flows from 1943 to 2000 on Yuba River near Marysville



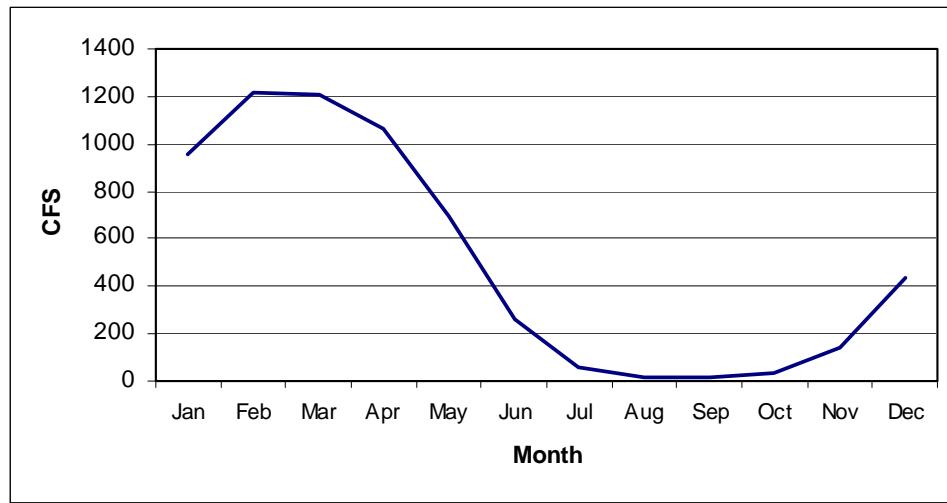
Note: USGS gage number 11421000 (USGS 2002)

Figure 3-23 Cosumnes River fall-run Chinook salmon yearly population estimates



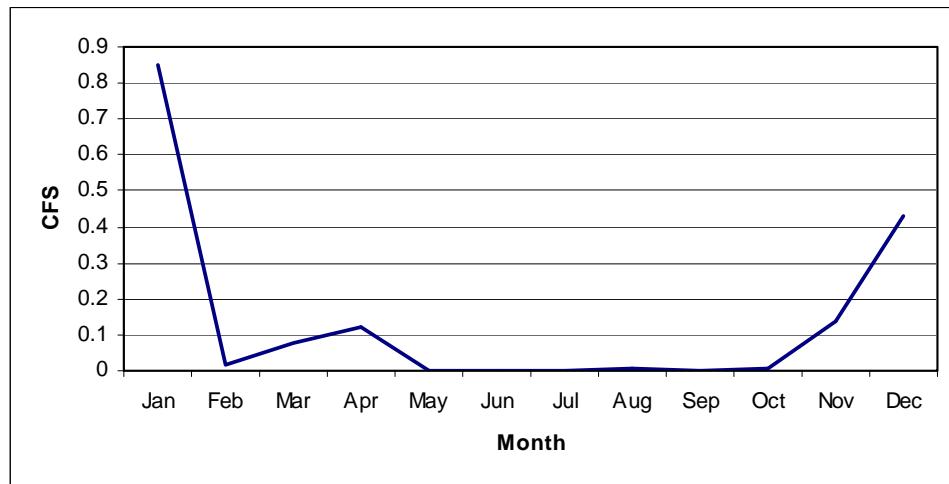
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-24 Mean monthly flows from 1907 to 2002 on Cosumnes River, at Michigan Bar Road, Sacramento County



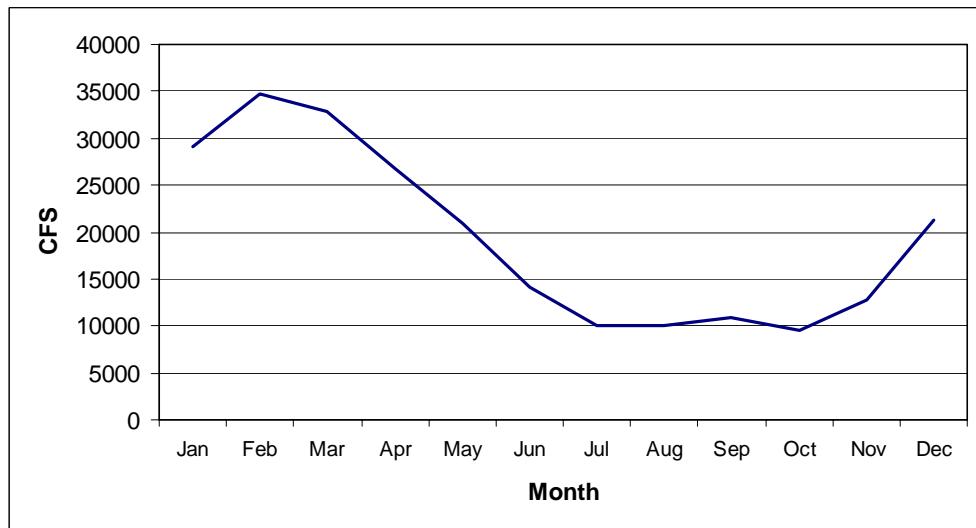
Note: USGS gage number 11335000 (USGS 2002)

Figure 3-25 Mean monthly flows from 1963 to 1967 on Dry Creek near Roseville



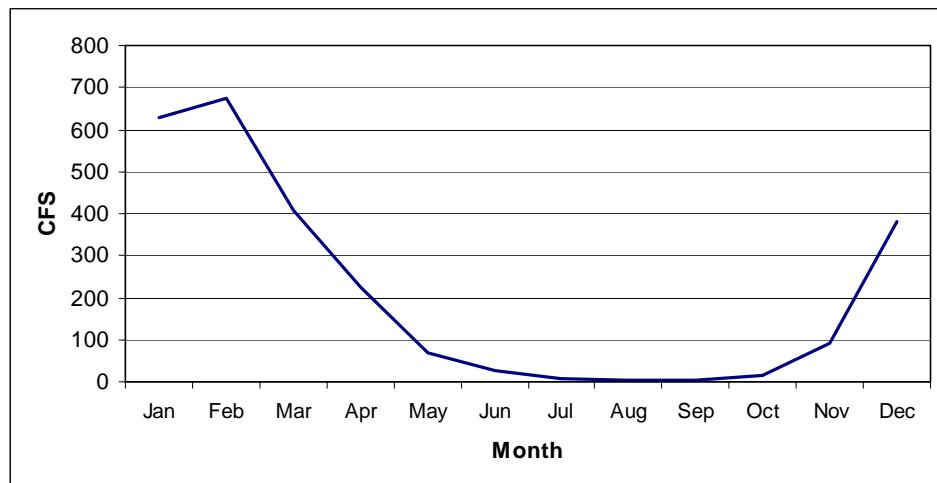
Note: USGS gage number 11447300 (USGS 2002)

Figure 3-26 Mean monthly flows from 1929 to 2000 on Sacramento River at Verona, Sutter County



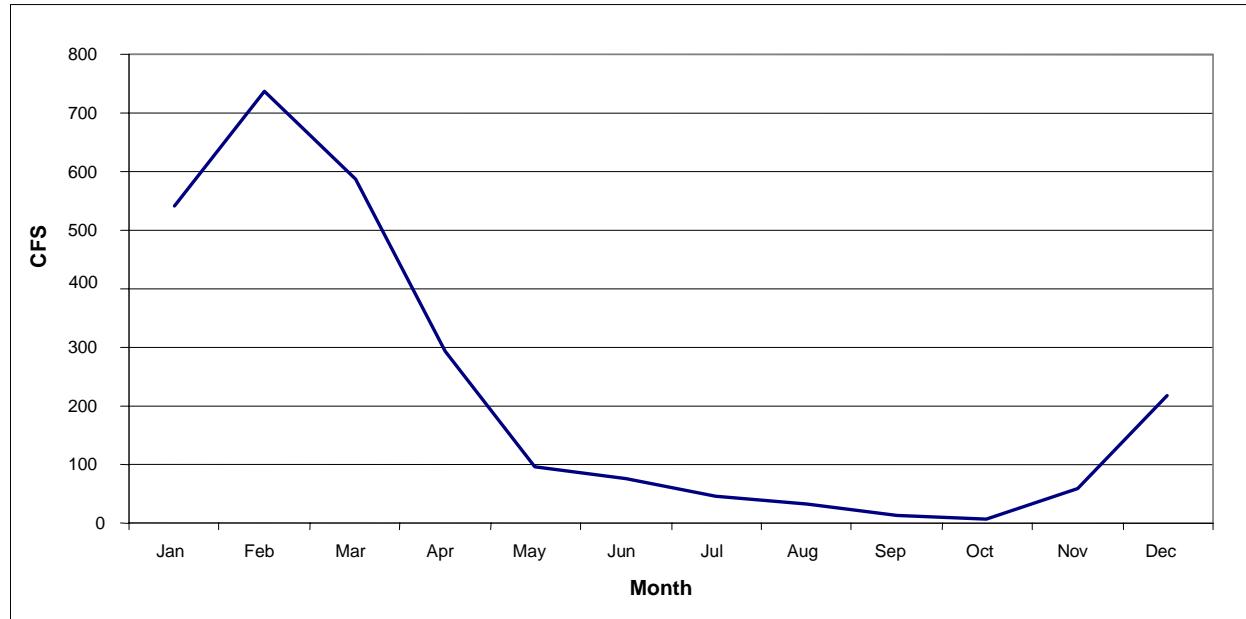
Note: USGS gage number 11425500 (USGS 2002)

Figure 3-27 Mean monthly flows from 1904 to 2000 on Putah Creek near Guenoc, Lake County



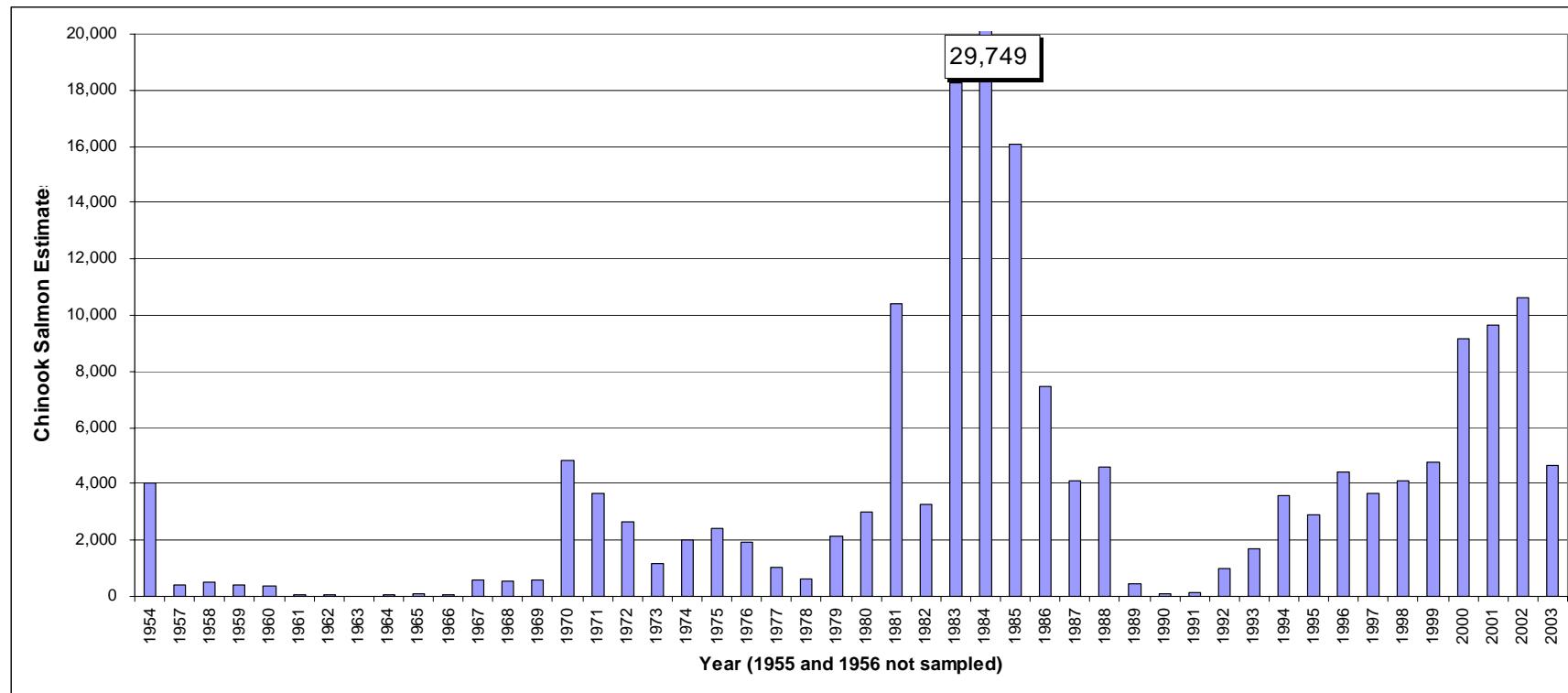
Note: USGS gage number 11453500 (USGS 2002)

Figure 3-28 Mean monthly flows from 1907 to 1966 on Calaveras River at Jenny Lind



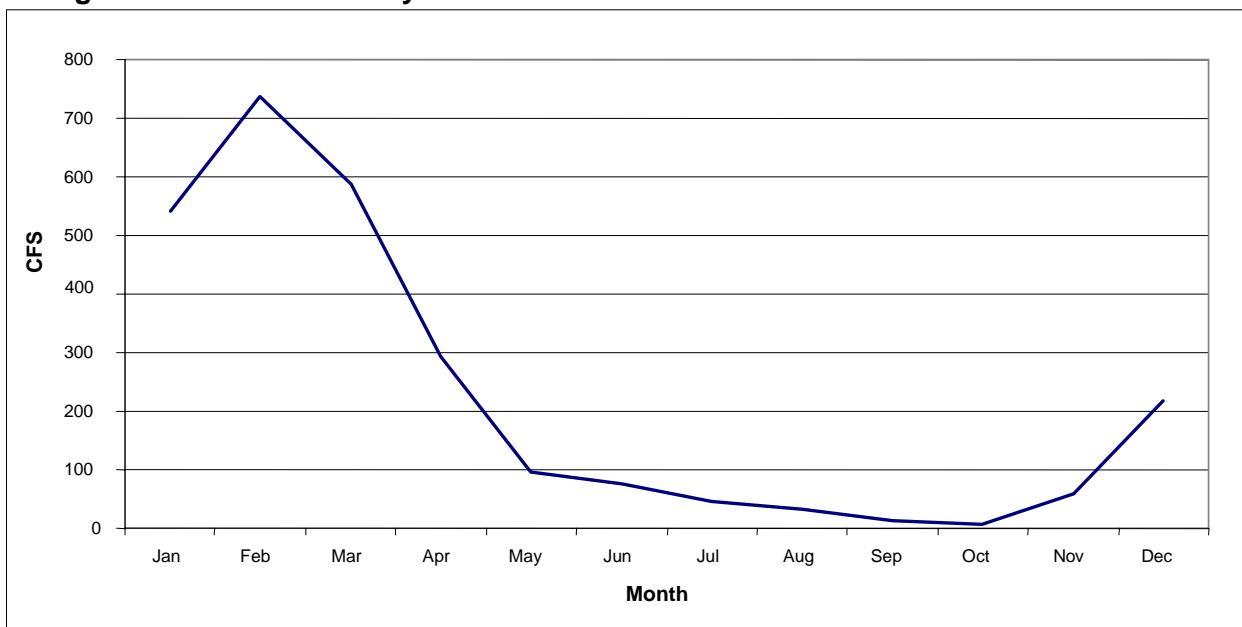
Note: USGS gage number 11309500 (USGS 2002)

Figure 3-29 Merced River fall-run Chinook salmon yearly population estimates



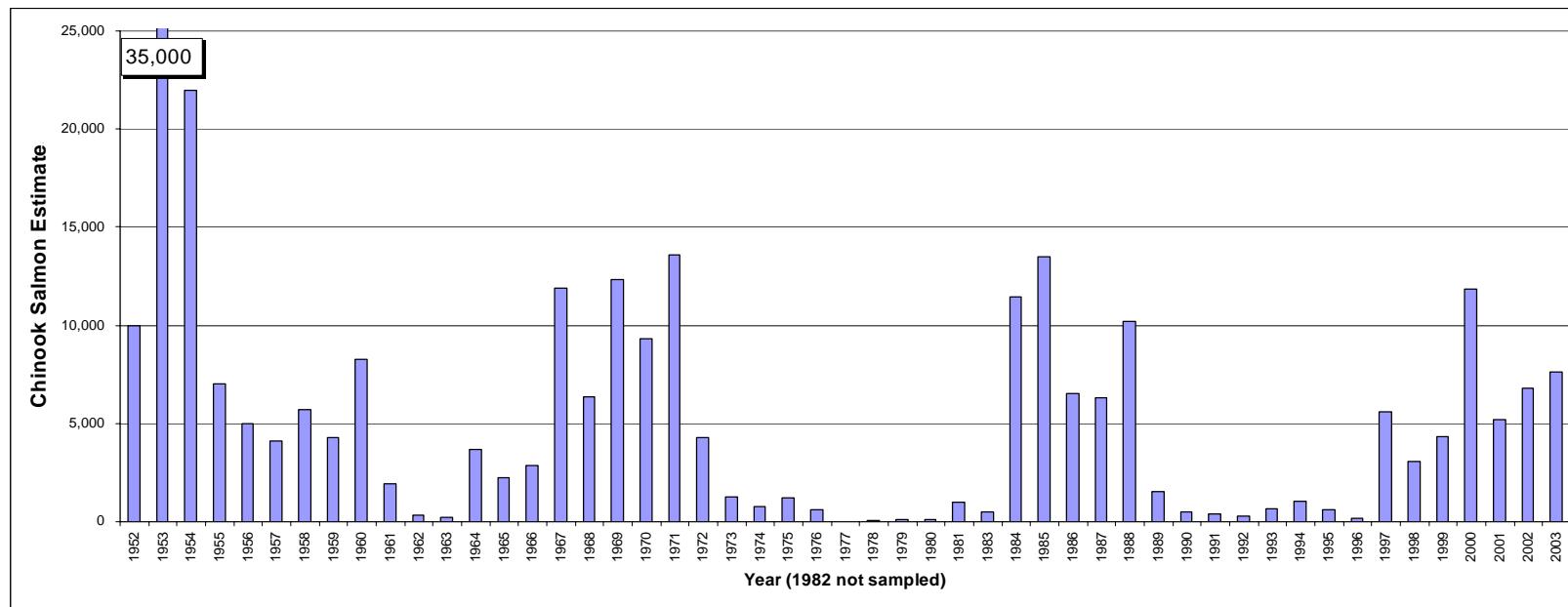
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Garrison, 2004

Figure 3-30 Mean monthly flows from 1940 to 1995 on Merced River near Stevinson



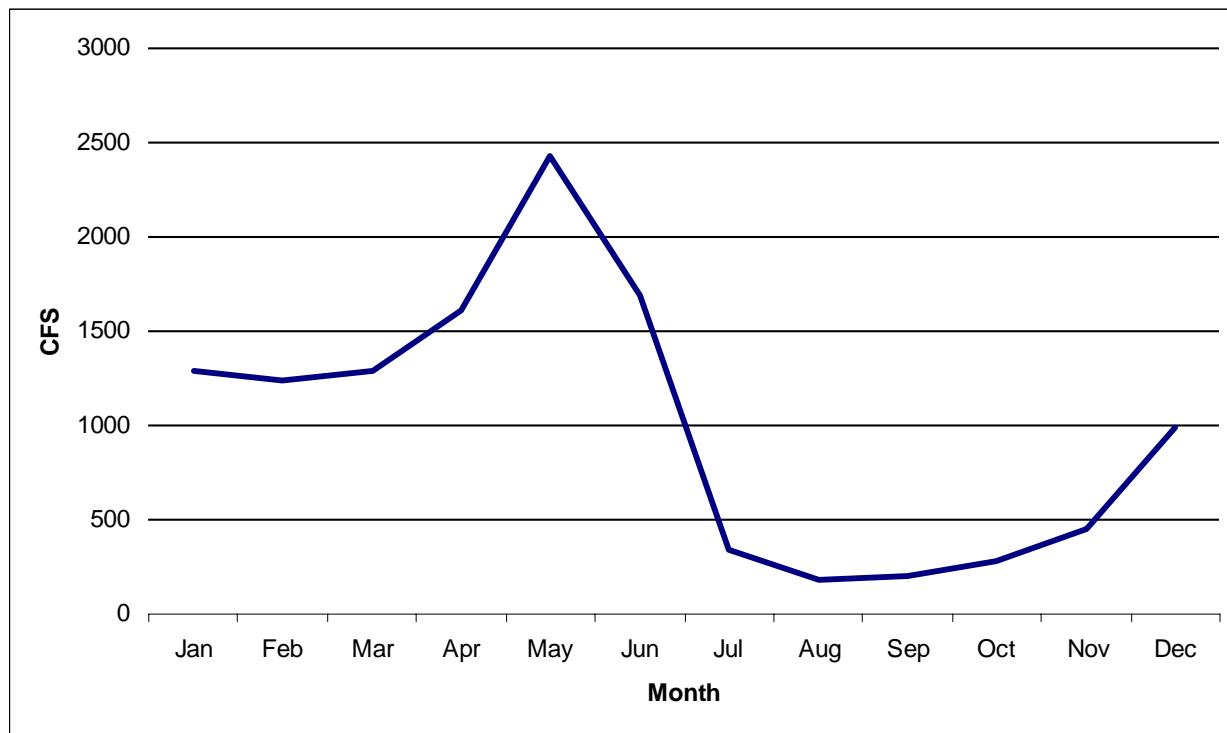
Note: USGS gage number 11272500 (USGS 2002)

Figure 3-31 Stanislaus River fall-run Chinook salmon yearly population estimates



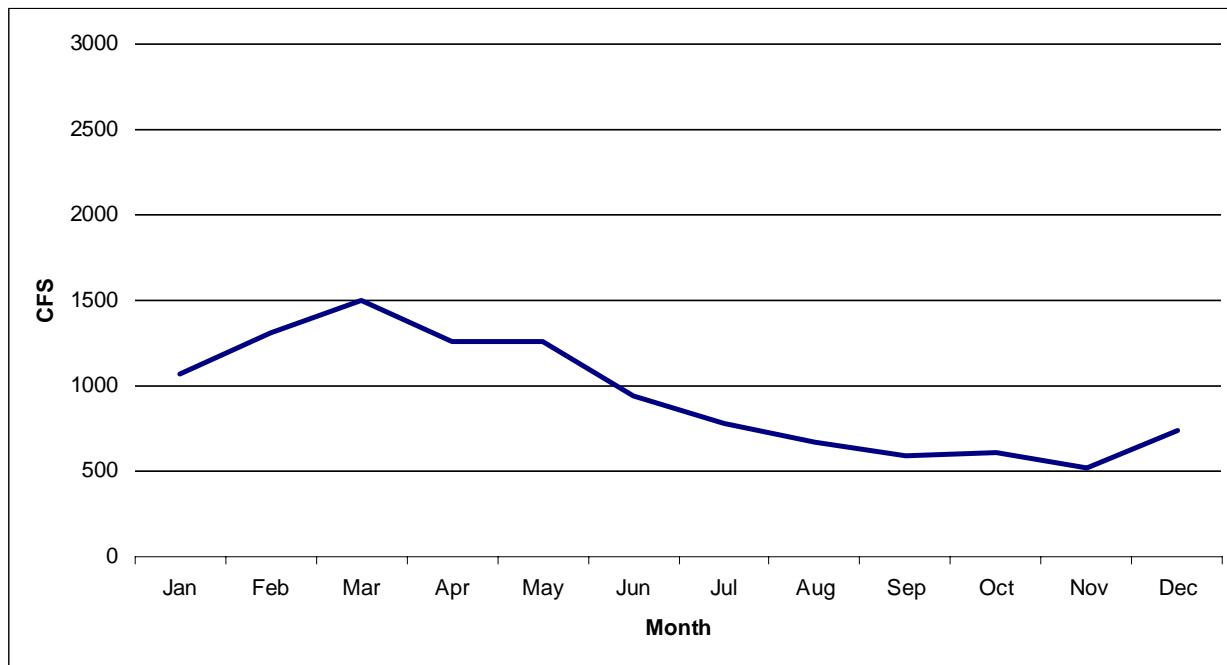
Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Arrison, 2004

Figure 3-32 Pre New Melones Dam mean monthly flows from 1940 to 1977 on Stanislaus River at Ripon



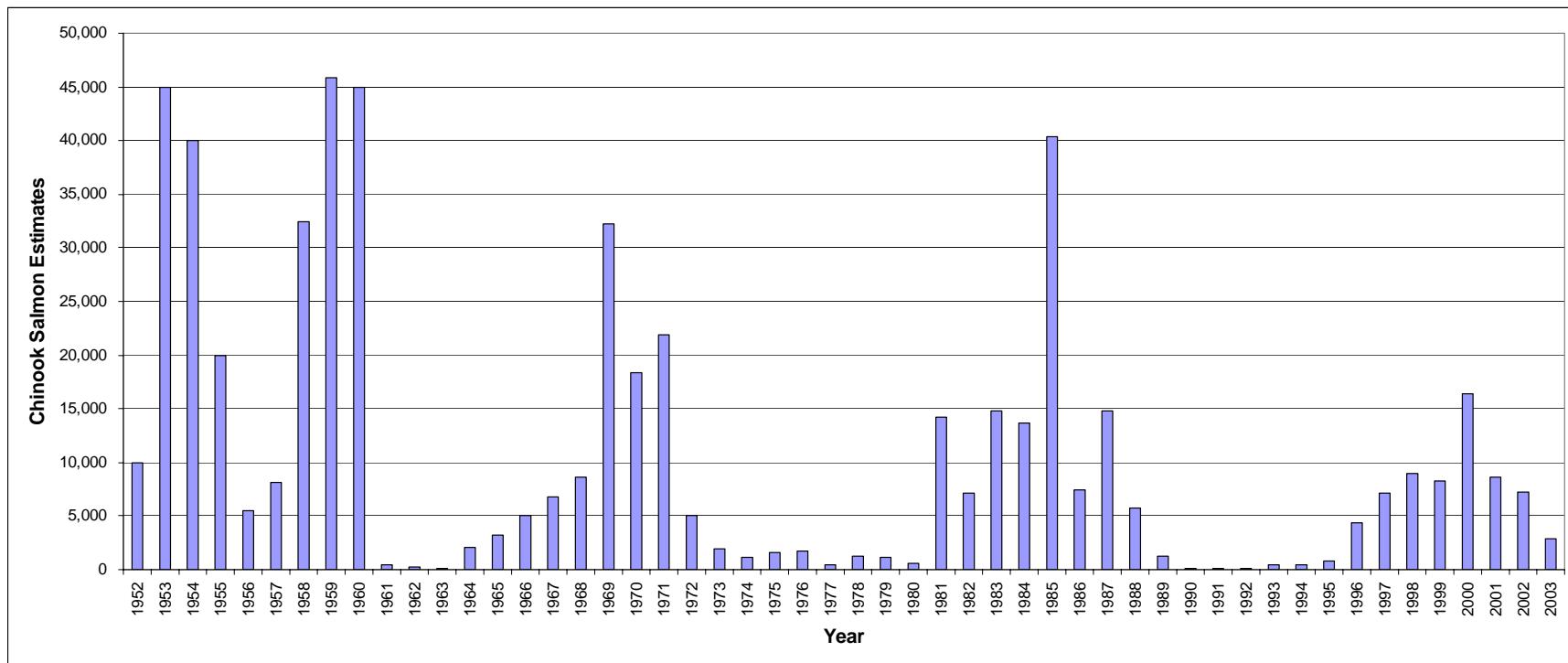
Note: USGS gage number 11303000 (USGS 2004)

Figure 3-33 Post New Melones Dam mean monthly flows from 1979 to 2003 on Stanislaus River at Ripon



Note: USGS gage number 11303000 (USGS 2004)

Figure 3-34 Tuolumne River fall-run Chinook salmon yearly population estimates



Note: GrandTab, DFG, Red Bluff Office, contact Colleen Harvey Arrison, 2004

**Photos 3-1 and 3-2 The Lower Clear Creek Floodway Rehabilitation overview (top photo)
and the new floodplain at work**



Table 3-1 Sacramento River matrix

River Name	Critical Habitat	Stream Type	Stream Habitat Survey Data	Stream Temperature Data	Gravel Survey Data	Vegetation Survey Data	Redd Survey Data	Steelhead Survey Data Pre-1960	Steelhead Surveys 1960-1980	Steelhead Surveys 1981-2000	Salmon Surveys Pre-1960	Salmon Surveys 1960-1980	Salmon Surveys 1981-2000	Streamflow Data	Flow Adequate Steelhead	Flow Adequate Fall Run	Flow Adequate Winter Run	Flow Adequate Spring Run	Flow Adequate Late-Fall Run
Battle Creek	Yes	Perennial	X	X		X			X	X	X	X	X	X	X	X	X	X	X
Big Chico Creek	Yes	Perennial	X	X	X	X	X		X	X	X	X	X			X	X		
Butte Creek	Yes	Perennial		X		X			X	X	X	X	X				X	X	
Clear Creek	Yes	Perennial	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Mill Creek	Yes	Perennial		X			X	X	X	X	X	X	X						
Sacramento River	Yes	Perennial	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yuba River	Yes	Perennial		X				X	X	X	X	X	X						

Table 3-2 Lower Sacramento River matrix

River Name	Critical Habitat	Stream Type																		
Cosumnes River	Yes	Perennial	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Dry Creek	Yes	Perennial	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Miners Ravine	Yes	Perennial	X																	
Murphy Creek	Yes	Perennial	X	X	X	X	X													
Putah Creek	Yes	Perennial	X						X	X	X	X	X	X	X	X	X	X	X	
Sacramento River	Yes	Perennial	X															X	X	X

Table 3-3 San Joaquin River matrix

River Name	Critical Habitat	Stream Type	Stream Habitat Survey Data	Stream Temperature Data	Gravel Survey Data	Vegetation Survey Data	Redd Survey Data	Steelhead Surveys Pre-1960	Steelhead Surveys 1960-1980	Salmon Surveys 1981-2000	Salmon Surveys Pre-1960	Salmon Surveys 1960-1980	Streamflow Data	Flow Adequate Steelhead	Flow Adequate Fall Run	Flow Adequate Winter Run	Flow Adequate Spring Run	Flow Adequate Late-Fall Run
Calaveras River	Yes	Seasonal	X	X				X	X		X	X						
Mormon Slough/Stockton Diverting Canal	Yes	Seasonal																
Merced River	Yes	Perennial	X	X	X	X				X	X	X	X		X			
Stanislaus River	Yes	Perennial	X	X	X	X	X		X	X	X	X	X		X			
Tuolumne River	Yes	Perennial	X	X	X	X	X	X		X	X	X	X		X			

Table 3-4 Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement Species	Up Passage	Down Passage
Battle Creek, North Fork	Wildcat Dam	Dam	2.4	1	Pool & Weir	Operating	No	Spring-run Chinook Salmon	Yes Yes
								Winter-run Chinook Salmon	Yes Yes
								Late-Fall Run Chinook Salmon	Yes No
								Fall-run Chinook Salmon	Yes No
	Eagle Canyon Dam	Dam	5.1	2	Alaska Steep Pass	Non-operating	Yes	Winter-run Chinook Salmon	Yes Yes
								Spring-run Chinook Salmon	Yes Yes
								Central Valley Steelhead	Yes Yes
	North Battle Creek Feeder Diversion	Dam	9.2	3	Alaska Steep Pass	Operating	Yes	Central Valley Steelhead	Yes Yes
								Spring-run Chinook Salmon	Yes Yes
Battle Creek, South Fork	Coleman Diversion Dam	Dam	2.5	1	Alaska Steep Pass	Operating	No	Spring-run Chinook Salmon	Yes Yes
								Winter-run Chinook Salmon	Yes Yes
								Central Valley Steelhead	Yes Yes
								Late-Fall Run Chinook Salmon	Yes Yes
								Fall-run Chinook Salmon	Yes Yes
	Inskip Diversion Dam	Dam	8	2	Alaska Steep Pass	Operating	Yes	Fall-run Chinook Salmon	Yes No
								Late-Fall Run Chinook Salmon	Yes No
								Winter-run Chinook Salmon	Yes Yes
								Spring-run Chinook Salmon	Yes Yes

Table 3-4 (continued) Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement Species	Up Passage	Down Passage
							Central Valley Steelhead	Yes	Yes
	South Diversion Dam	Dam	13.9	3	Denil	Operating	No	Spring-run Chinook Salmon	Yes Yes
							Central Valley Steelhead	Yes	Yes
							Winter-run Chinook Salmon	Yes	Yes
Ripley Creek	Lower Ripley Creek Diversion Dam	Dam	1	5	None	None	No	Central Valley Steelhead	Yes Yes
Soap Creek	Soap Creek Diversion Dam	Dam	1	6	None	None	No	Central Valley Steelhead	No No
Big Chico Creek	Bear Hole	Natural	13.3	5	None	None	No	Central Valley Steelhead	Yes Yes
							Winter-run Chinook Salmon	Yes	Yes
							Spring-run Chinook Salmon	Yes	Yes
	Iron Canyon	Natural	14.2	6	Pool & Weir	Non-operating	Yes	Central Valley Steelhead	Yes Yes
							Winter-run Chinook Salmon	Yes	Yes
							Spring-run Chinook Salmon	Yes	Yes
Butte Creek	Tarke Weir	Weir	3.6	2	None	None	No	Fall-run Chinook Salmon	Yes Yes
							Late-Fall Run Chinook Salmon	Yes	Yes
							Spring-run Chinook Salmon	Yes	Yes
							Sacramento splittail	Yes	Yes
							Central Valley Steelhead	Yes	Yes
	Drivers Cut Weir	Weir	5.5	4	None	None	No	Fall-run Chinook Salmon	Yes Yes
							Sacramento splittail	Yes	Yes
							Central Valley Steelhead	Yes	Yes

Table 3-4 (continued) Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement Species	Up Passage	Down Passage	
							Spring-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
	Drumheller Slough	Culvert	8.3	5	None	None	No	Spring-run Chinook Salmon	Yes	Yes
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Central Valley Steelhead	Yes	Yes	
							Sacramento splittail	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
	White Mallard Outfall	Weir	10.2	6	None	None	No	Central Valley Steelhead	Yes	Yes
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Sacramento splittail	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
	White Mallard Dam	Weir	12	7	Pool & Weir	Non-operating	Yes	Fall-run Chinook Salmon	Yes	Yes
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	
							Central Valley Steelhead	Yes	Yes	
							Sacramento splittail	Yes	Yes	
Cherokee Canal	Morton Weir	Weir	0.9	3	None	None	No	Fall-run Chinook Salmon	Yes	Yes
							Spring-run Chinook Salmon	Yes	Yes	

Table 3-4 (continued) Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement	Species	Up Passage	Down Passage
								Sacramento splittail	Yes	Yes
								Central Valley Steelhead	Yes	Yes
								Late-Fall Run Chinook Salmon	Yes	Yes
	Mile Long Canal	Weir	1	2	None	None	No	Central Valley Steelhead	Yes	Yes
								Sacramento splittail	Yes	Yes
								Spring-run Chinook Salmon	Yes	Yes
								Late-Fall Run Chinook Salmon	Yes	Yes
								Fall-run Chinook Salmon	Yes	Yes
Sanborn Slough	North Weir	Weir	1.7	2	None	None	No	Spring-run Chinook Salmon	Yes	Yes
								Late-Fall Run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
								Sacramento splittail	Yes	Yes
								Fall-run Chinook Salmon	Yes	Yes
	End Weir	Weir	2.8	1	None	None	No	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
								Spring-run Chinook Salmon	Yes	Yes
								Late-Fall Run Chinook Salmon	Yes	Yes
								Sacramento splittail	Yes	Yes
Sutter Bypass/East Canal	Nelson Slough Weir	Weir	8.3	1	None	None	No	Sacramento splittail	Yes	Yes

Table 3-4 (continued) Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement Species	Up Passage	Down Passage	
							Central Valley Steelhead	Yes	Yes	
							Winter-run Chinook Salmon	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
Willow Slough	Weir	9.6	2	Denil	Operating	Yes	Fall-run Chinook Salmon	Yes	Yes	
							Winter-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	
							Central Valley Steelhead	Yes	Yes	
							Sacramento splittail	Yes	Yes	
Sutter Bypass Weir #2	Weir	25	3	Pool & Weir	Operating	Yes	Central Valley Steelhead	Yes	Yes	
							Sacramento splittail	Yes	Yes	
							Winter-run Chinook Salmon	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
Sutter Bypass/West Canal	Sutter Bypass Weir #1	Weir	19.9	1	Vertical Slot	Operating	Yes	Late-Fall Run Chinook Salmon	Yes	Yes
							Winter-run Chinook Salmon	Yes	Yes	

Table 3-4 (continued) Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement Species	Up Passage	Down Passage	
							Spring-run Chinook Salmon	Yes	Yes	
							Central Valley Steelhead	Yes	Yes	
							Sacramento splittail	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
	Guisti Weir	Weir	22.5	2	Bypass	Operating	Yes	Late-Fall Run Chinook Salmon	Yes	Yes
							Winter-run Chinook Salmon	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	
							Central Valley Steelhead	Yes	Yes	
							Sacramento splittail	Yes	Yes	
	Sutter Bypass Weir #3	Weir	25	3	None	None	No	Spring-run Chinook Salmon	Yes	Yes
							Winter-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
							Sacramento splittail	Yes	Yes	
							Central Valley Steelhead	Yes	Yes	
	Sutter Bypass Weir #5	Weir	28.9	4	None	None	Yes	Spring-run Chinook Salmon	Yes	Yes
							Winter-run Chinook Salmon	Yes	Yes	
							Sacramento splittail	Yes	Yes	

Table 3-4 (continued) Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement Species	Up Passage	Down Passage	
							Central Valley Steelhead	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
	East-West Diversion Weir	Weir	29.8	5	None	None	Sacramento splittail	Yes	Yes	
							Winter-run Chinook Salmon	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	
							Central Valley Steelhead	Yes	Yes	
Clear Creek	Saeltzer Dam	Dam	6.3	2	Pool & Weir	Non-operating	Yes	Central Valley Steelhead	Yes	Yes
							Fall-run Chinook Salmon	Yes	Yes	
							Late-Fall Run Chinook Salmon	Yes	Yes	
Mill Creek	Clough Dam	Dam	4.2	2	None	None	No	Central Valley Steelhead	Yes	Yes
							Spring-run Chinook Salmon	Yes	Yes	
							Winter-run Chinook Salmon	Yes	Yes	
							Fall-run Chinook Salmon	Yes	Yes	
Yuba River	Daguerre Point Dam	Dam	11.5	1	Pool & Weir	Operating	No	Fall-run Chinook Salmon	Yes	Yes
							Late-Fall Run Chinook Salmon	Yes	Yes	
							Spring-run Chinook Salmon	Yes	Yes	

Table 3-4 (continued) Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement Species	Up Passage	Down Passage
							Central Valley Steelhead	Yes	Yes
							Green sturgeon	Yes	No
	Daguerre Point Dam	Dam	11.5	1	Pool & Weir	Non-operating	Spring-run Chinook Salmon	Yes	Yes
							Late-Fall Run Chinook Salmon	Yes	Yes
							Central Valley Steelhead	Yes	Yes
							Green sturgeon	Yes	No
							Fall-run Chinook Salmon	Yes	Yes
	Englebright	Variable Radius	24	2	None	None	Spring-run Chinook Salmon	Yes	No
							Late-Fall Run Chinook Salmon	Yes	No
							Fall-run Chinook Salmon	Yes	No
							Central Valley Steelhead	Yes	No

All structures are listed in order from downstream to upstream by river.

Species indicates that the species has been documented in the stream.

Upstream Passage indicates whether or not the species can traverse the structure in the upstream direction (yes does not indicate that passage is possible at all flows).

Down Passage indicates whether or not juvenile fishes can traverse the structure in the downstream direction.

Table 3-5 Lower Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement	Species	Up Passage	Down Passage
Cosumnes River	Consumnes River Road Crossing	Road	7	1	Other, upstream	Operating	No	Central Valley Steelhead	Yes	Yes
								Fall-run Chinook Salmon	Yes	Yes
	Hopland Ranch Dam	Dam	16	2	None	None	Yes	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
	Blodgett Dam	Dam	23	3	Other, upstream	Operating	Yes	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
	Granlees	Gravity	34	4	Ladder, upstream	Operating	Yes	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
	Granlees	Gravity	34	4	Screened intake, downstream	Operating	No	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
Dry Creek	Hayer Dam	Dam	2.6	1	None	None	No	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
	Pipeline Crossing	Pipeline		1	None	None	No	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
Secret Ravine	Triple Pipeline Crossing	Pipeline	0.1	1	None	None	No	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead	Yes	Yes
Miners Ravine	Cottonwood Dam	Dam	7.4	1	None	None	No	Fall-run Chinook Salmon	No	No
								Central Valley Steelhead	No	No
Murphy Creek	Sparrowk Dam	Dam					Yes	Fall-run chinook Salmon and Central Valley Steelhead	No	No
	Road Crossing	Road					Yes	Fall-run chinook Salmon and Central Valley Steelhead		
Putah Creek	Bypass Check Dam	Dam	0	1	None	None	Yes	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead-Anecdotal	UNK	UNK

Table 3-5 (continued) Lower Sacramento River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement	Species	Up Passage	Down Passage
	Ag Road on Putah Creek	Culvert	2	2	Culvert, downstream	Operating	No	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead-Anecdotal	Yes	Yes
	Winters Percolation Dam	Dam	20	3	None	None	No	Fall-run Chinook Salmon	Yes	Yes
								Central Valley Steelhead-Anecdotal	Yes	Yes
	Putah Diversion Dam	Dam	24	4	None	None	No	Fall-run Chinook Salmon	No	No
								Central Valley Steelhead	No	No
Sacramento River	Fremont Weir	Flood control weir	77		Ladder, upstream	Non-operating	Yes	Fall-run Chinook Salmon	No	No
								Late Fall-run Chinook Salmon	No	No
								Winter-run Chinook Salmon	No	No
								Spring -run Chinook Salmon	No	No
								Green Sturgeon	No	No
								Central Valley Steelhead	No	No
								Sacramento Splittail	No	No

All structures are listed in order from downstream to upstream by river.

Species indicates that the species has been documented in the stream.

Upstream Passage indicates whether or not the species can traverse the structure in the upstream direction (yes does not indicate that passage is possible at all flows). UNK indicates unknown.

Down Passage indicates whether or not juvenile fishes can traverse the structure in the downstream direction. UNK indicates unknown.

Table 3-6 San Joaquin River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement	Species	Up Passage	Down Passage
Calaveras River	McAllen Dam	Dam	6.9	1				Fall-run chinook Salmon and Central Valley Steelhead		
	Cherryland Dam	Dam	7.9	2				Fall-run chinook Salmon and Central Valley Steelhead		
	Solari Dam	Dam	10	3				Fall-run chinook Salmon and Central Valley Steelhead		
	Pezzi Dam	Dam	12	4				Fall-run chinook Salmon and Central Valley Steelhead		
	Murphy Dam	Dam	12	5				Fall-run chinook Salmon and Central Valley Steelhead		
	Eight Mile Dam	Dam	15	6				Fall-run chinook Salmon and Central Valley Steelhead		
	Tully Dam	Dam	17	7				Fall-run chinook Salmon and Central Valley Steelhead		
	Clements Dam	Dam	21	8				Fall-run chinook Salmon and Central Valley Steelhead		
	Calaveras Head Works	Dam	25	9				Fall-run chinook Salmon and Central Valley Steelhead		
	Calaveras Head Works	Dam	25	9				Fall-run chinook Salmon and Central Valley Steelhead		
	Bellota Weir	Weir	25	10	Temporary ladder	Under evaluation	No	Fall-run chinook Salmon and Central Valley Steelhead	yes	No
	McGurk Earth Dam	Dam	27	11				Fall-run chinook Salmon and Central Valley Steelhead		
	Wilsons Crossing Dam	Dam	28	12				Fall-run chinook Salmon and Central Valley Steelhead		
	Williams Crossing	Dam	31	13				Fall-run chinook Salmon and Central Valley Steelhead		
	Road	Road	33	14				Fall-run chinook Salmon and Central Valley Steelhead		
	Dam	Dam	43	15				Fall-run chinook Salmon and Central Valley Steelhead		
Calaveras River Trib	Davis No 2	Earth	0.1	1						
	Bevanda	Earth	5.3	2						
	Foothill Ranch	Earth	5.5	3						
Mormon Slough	Budiselich Dam	Dam	2	1				Fall-run chinook Salmon and Central Valley Steelhead		
	Main Street Dam	Dam	4.9	2				Fall-run chinook Salmon and Central Valley Steelhead		
	Panella Dam	Dam	6.6	3				Fall-run chinook Salmon and Central Valley Steelhead		

Table 3-6 (continued) San Joaquin River passage matrix

River Name	Barrier Name	Description	River Miles	Sequence	Passage Type	Functional Status	Enhancement	Species	Up Passage	Down Passage
	Caprini Crossing	Dam	7.1	4				Fall-run chinook Salmon and Central Valley Steelhead		
	Lavaggi Dam	Dam	7.4	5				Fall-run chinook Salmon and Central Valley Steelhead		
	Hogan Crossing	Dam	8.4	6				Fall-run chinook Salmon and Central Valley Steelhead		
	McClean Dam	Dam	8.5	7				Fall-run chinook Salmon and Central Valley Steelhead		
	Fujinaka Crossing	Dam	9.5	8				Fall-run chinook Salmon and Central Valley Steelhead		
	Prato Dam	Dam	10	9				Fall-run chinook Salmon and Central Valley Steelhead		
	Mormon Slough Tressel	Road	11	10				Fall-run chinook Salmon and Central Valley Steelhead		
	Piazza Dam	Dam	12	11				Fall-run chinook Salmon and Central Valley Steelhead		
	Bonomo Dam	Dam	12	12				Fall-run chinook Salmon and Central Valley Steelhead		
	Hosie Low Water Crossing	Road	13	13				Fall-run chinook Salmon and Central Valley Steelhead		
	Hosie Dam	Dam	13	14				Fall-run chinook Salmon and Central Valley Steelhead		
	Avansino Dam	Dam	14	15				Fall-run chinook Salmon and Central Valley Steelhead		
	Fine Dam	Dam	15	16				Fall-run chinook Salmon and Central Valley Steelhead		
	Motoide Dam	Dam	16	17				Fall-run chinook Salmon and Central Valley Steelhead		
	Watkins Crossing	Road	17	18				Fall-run chinook Salmon and Central Valley Steelhead		
Mormon Slough Trib	Gilmore	Earth	5.5	1						
Mosher Creek	Leffler Dam	Dam	9.9	1						

Table 3-6 (continued) San Joaquin River passage matrix

River Name	Barrier Name	Description	River Mile	Sequence	Passage Type	Functional Status	Enhancement	Species	Up Passage	Down Passage
	Cotta & Ferreira Concrete Crossing	Road	11	2						
	Cotta & Ferreira Dirt Crosing	Road	11	3						
	Cotta & Ferreira Dam	Dam	11	4						
	Cortopassi Dam #2	Dam	13	5						
	Cortopassi Dam #1	Dam	13	6						
	Bear Creek Check & Spill S.J.F.C.	Dam	13	7						
	Diversion Dam/Mosher Creek	Dam	13	8						
	Lyons Dam	Dam	15	9						
	Gurnsey Crossing	Road	20	10						
	Webster Dam	Dam	21	11						
New Channel of Potter Creek	Cliff Motoike Sack Dam	Dam	2	1						
	Leonardini Dirt Crossing	Road	3.6	2						
	Billingmeier Dam	Dam	3.9	3						
Potter Creek	Fowler Bridge	Dam	0							
	Sam Motoike	Road	0							
	McCarthy Crossing	Dam	0							
	Delucci Crossing	Dam	0.9							
	Delucci #2 Crossing	Dam	1.3							
	Stagnaro Crossing	Dam	3.1							
	Cavagnaro Crossing	Dam	3.6							
	Gonser Crossing	Dam	3.7							
	Sanguineti Dam	Dam	5							
	Machado Crossing	Road	7.5							
	Kennedy Dam	Dam	10							
	Billingmeier Rock Dam	Dam								

Information for the Stanislaus, Tuolumne, and Merced Rivers is not available. All structures are listed in order from downstream to upstream by river.

Species indicates that the species has been documented in the stream.

Up Passage indicates whether or not the species can traverse the structure in the upstream direction (yes does not indicate that passage is possible at all flows).

Down Passage indicates whether or not juvenile fishes can traverse the structure in the downstream direction.

Table 3-7 Butte Creek spring-run Chinook salmon escapement estimates comparing snorkel surveys and spawning surveys (carcass survey)

Year	Run size using snorkel surveys*	Run size using carcass surveys
2001	9,605	18,312
2002	8,785	12,597
2003	4,398	6,063

* Snorkle surveys do not include pre-spawning mortalities